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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,667	07/31/2003	Paul M. Aumuller	982/93104pus	7780

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EXAMINER

KEASEL, ERIC S

ART UNIT	PAPER NUMBER
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3754

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/630,667	AUMULLER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Eric Keasel	3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Specification*

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract uses legal phraseology and uses phrases that can be implied (i.e., "Disclosed is a..."). Correction is required. See MPEP § 608.01(b).

### *Drawings*

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the outlet port formed through the upper section of the side wall (claim 6) must be shown or the feature(s) canceled from the claim(s). Figs. 1 and 3 show the outlet port closer to the bottom of the reservoir than the top (this can not fairly be called an "upper section". No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure

Art Unit: 3754

must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Greenstein (US Patent Number 3,631,631).

Greenstein discloses a mixing apparatus for use with a supply of particulate material and a flow of gas, said apparatus comprising: a hollow receptacle (10 or 14) defining a chamber including a lower portion for receiving said supply of particulate abrasive material and an upper portion contiguous with and overlying said lower portion, the receptacle having an inlet port (55 or 56) formed therethrough contiguous with the lower portion of the chamber and an outlet port (46 or 47) formed therethrough contiguous with the upper portion of the chamber (the top,

Art Unit: 3754

bottom, and sides are all contiguous with each other so the outlet of applicant's disclosure being toward the bottom and the outlet of Greenstein being at the bottom both meet this limitation); support means (26, 29, 30) for supporting the receptacle for vibratory movement; gas input means (the gas source, regulator, valves, and tubes) for receiving the flow of gas and delivering same to the inlet port; and vibratory means (32) for effecting said vibratory movement of the receptacle in a manner sufficiently vigorous to create a dispersion of said particulate material through which gas delivered to the inlet port can diffuse to the outlet port, at least a portion of said dispersion being fluidized so as to issue, with said gas, through the outlet port as a flow of gas having particulate material entrained therewithin; wherein the receptacle includes a tubular side wall, a tube cap and a tube bottom wall, the side wall extending between and defining vertically spaced-apart tube ends occluded, respectively, by the tube cap and the tube bottom wall; wherein the side wall includes an upper section which, in combination with the tube cap defines the upper portion of the chamber, and a lower section which, in combination with the tube bottom wall defines the lower portion of the chamber; wherein the inlet receptacle is formed through the tube bottom wall; wherein the inlet receptacle is formed through the tube bottom wall adjacent to the side wall; and wherein the side wall is cylindrical.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Greenstein.

Greenstein discloses a mixing apparatus for use with a supply of particulate material and a flow of gas, said apparatus comprising: a hollow receptacle (10 or 14) defining a chamber including a lower portion for receiving said supply of particulate abrasive material and an upper portion contiguous with and overlying said lower portion, the receptacle having an inlet port (55 or 56) formed therethrough contiguous with the lower portion of the chamber; support means (26, 29, 30) for supporting the receptacle for vibratory movement; gas input means (the gas source, regulator, valves, and tubes) for receiving the flow of gas and delivering same to the inlet port; and vibratory means (32) for effecting said vibratory movement of the receptacle in a manner sufficiently vigorous to create a dispersion of said particulate material through which gas delivered to the inlet port can diffuse to the outlet port, at least a portion of said dispersion being fluidized so as to issue, with said gas, through the outlet port as a flow of gas having particulate material entrained therewithin; wherein the receptacle includes a tubular side wall, a tube cap and a tube bottom wall, the side wall extending between and defining vertically spaced-apart

Art Unit: 3754

tube ends occluded, respectively, by the tube cap and the tube bottom wall; wherein the side wall includes an upper section which, in combination with the tube cap defines the upper portion of the chamber, and a lower section which, in combination with the tube bottom wall defines the lower portion of the chamber; wherein the inlet receptacle is formed through the tube bottom wall; wherein the inlet receptacle is formed through the tube bottom wall adjacent to the side wall; and wherein the side wall is cylindrical; wherein the support means comprises a base (29) and two or more legs (30), each of said two or more legs extending between and operatively connecting the base to the receptacle; wherein each of said one or more legs is comprised of a spring; wherein the vibratory means comprises a pneumatic shaker (32) operatively rigidly mounted to the receptacle (through 26); wherein the receptacle is mounted on a platform (26), and each of said one or more legs extends between and connects the base to the platform; wherein the shaker is mounted on the platform; and wherein said gas input means comprises a tube having a first end adapted to receive said flow of gas and a second end coupled to the gas inlet.

Re the location of the outlet port, claim 1 recites that the outlet port is contiguous with the upper portion of the chamber and claim 6 recites that the outlet port is formed through the upper section of the side wall. It would appear that Greenstein meets the “contiguous” limitation as set forth above because the top, bottom, and sides are all contiguous with each other so the outlet of applicant’s disclosure being toward the bottom and the outlet of Greenstein being at the bottom both meet this limitation. However, a more narrow reading of claim 1 would not anticipate the location of the outlet port. Also, in claim 6, the outlet port is formed through the upper section of the side wall is not disclosed by Greenstein; but it should be noted that applicant does not have

Art Unit: 3754

clear support for this limitation in the drawings because the outlet port is at or below the center of the receptacle. So, Greenstein discloses all the recited limitations except for the location of the outlet port. The examiner takes official notice that the location of the outlet port through the "upper section of the side wall" is old and well known in the art and one of ordinary skill in the art would have selected such a location based on space considerations.

### *Conclusion*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wilson et al., Ashworth et al., Janninck, Vit, Merrigan, Hain et al., Fernwood et al., and Elrod et al. disclose similar vibrating receptacles that use gas to entrain particulate material.


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (571) 272-4929. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Art Unit: 3754

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 27 MAY 2005

Eric Keasel  
Primary Examiner  
Art Unit 3754